

*AMENDMENTS TO THE CLAIMS*

This listing of claims replaces all prior versions, and listings, of claims in the application.

1. (Previously Presented) A system for guiding a vehicle along a guiding rail, having a rolling surface and at least one side surface that constitutes a guiding surface, the system comprising:

a guiding roller device cooperating with the rolling surface and the side surface and including

a rolling part for rolling contact at a peripheral surface with the rolling surface of the rail, and at least one side part coming into contact with the side surface of the rail facing the at least one side part, wherein the rolling part and the side part are rotationally connected and the side part is in pin-point contact with the rail and has, at a point of contact with the rail, the same speed as the rolling part on the rolling surface on rail.

2. (Previously Presented) The system according to Claim 1, wherein the side part of the roller device includes at least one rolling support roller and at least one side roller and the side part has a diameter and shape for contacting the rail so that the side roller, at the point of contact with the rail, has the same speed as the rolling part contacting the rolling surface of the rail.

3. (Previously Presented) The guiding system according to Claim 2, for guiding by two parallel guiding rails having exterior side surfaces as guiding surfaces, the guiding system comprising a support roller and a side roller for each guiding rail.

4. (Previously Presented) The system according to Claim 2, wherein the guiding roller device includes a central roller and two side rollers as side parts, the

side parts having a diameter and shape for contacting the rail so that the side rollers, at points of contact with the rail, have the same speed as the central roller at the rolling surface of the rail.

5. (Previously Presented) The system according to Claim 2, wherein areas of contact of the side roller have, in radial section, a convex profile, and contact surfaces of the rail are essentially planar.

6. (Previously Presented) The system according to Claim 4, wherein the side rollers are rotationally synchronized with the central roller.

7. (Previously Presented) The system according to Claim 4, including means for synchronizing rotation speed of the side rollers with rotation speed of the central roller comprising teeth associated respectively with the side roller and with the central roller, and which mesh with one another.

8. (Previously Presented) The system according to Claim 7, wherein the teeth are mounted on a support via means sliding between the teeth and the support when a relative force exceeding a predetermined threshold is applied.

9. (Previously Presented) The system according to Claim 7, wherein the means for synchronizing rotation speed of the side rollers with rotation speed of the central roller includes belts and pulleys.

10. (Previously Presented) The system according to Claim 7, wherein the means for synchronizing rotation speed of the side rollers with rotation speed of the central roller comprises a ring of a nondeformable solid material in contact with a bearing surface of the central roller to ensure rotation of the side rollers by friction with the central roller.

11. (Previously Presented) The system according to Claim 10, wherein the central roller includes a ring rotating freely and maintained by a support device connected to a support shaft.

12. (Previously Presented) The system according to Claim 11, wherein the support device comprises rollers for support by a ring and that come into rolling contact with an internal annular surface of the ring.

13. (Previously Presented) The system according to Claim 1, including two rollers, each roller having a radial external part for contacting a side surface of the rail and a radial internal part for contacting the upper surface of the rail, the two rollers being arranged in a V-shaped configuration.

14. (Previously Presented) The system according to Claim 1, wherein the system includes two rollers, each roller having a radial external part for contacting a side surface of the rail and a radial internal part for contacting an upper surface of the rail, the two rollers being arranged in a V-shaped configuration, wherein a first of the rollers has a peripheral ring for contacting an annular surface of a second

15. (New) A system for guiding a vehicle along a guiding rail, having a rolling surface and at least one side surface that constitutes a guiding surface, the system comprising:

a guiding roller device cooperating with the rolling surface and the side surface and including

a rolling part for rolling contact at a peripheral surface with the rolling surface of the rail, and at least one side part coming into contact with the side surface of the rail facing the at least one side part, wherein

the rolling part and the side part are rotationally connected and the side part is in pin-point contact with the rail and has, at a point of contact with the rail, the same speed as the rolling part on the rolling surface on rail, and

the guiding roller device includes a central roller, as a support roller, and two side rollers as side parts, the side parts having a diameter and shape so that the side rollers, at points of contact with the rail, have the same speed as the central roller at the rolling surface of the rail.

16. (New) The system according to Claim 15, wherein areas of contact of the side roller have, in radial section, a convex profile, and contact surfaces of the rail are essentially planar.

17. (New) The system according to Claim 15, wherein the side rollers are rotationally synchronized with the central roller.

18. (New) The system according to Claim 15, including means for synchronizing rotation speed of the side rollers with rotation speed of the central roller comprising teeth associated respectively with the side roller and with the central roller, and which mesh with one another.

19. (New) The system according to Claim 18, wherein the teeth are mounted on a support via means sliding between the teeth and the support when a relative force exceeding a predetermined threshold is applied.

20. (New) The system according to Claim 18, wherein the means for synchronizing rotation speed of the side rollers with rotation speed of the central roller includes belts and pulleys.

21. (New) The system according to Claim 18, wherein the means for synchronizing rotation speed of the side rollers with rotation speed of the central roller comprises a ring of a nondeformable solid material in contact with a bearing surface of the central roller to ensure rotation of the side rollers by friction with the central roller.

22. (New) The system according to Claim 21, wherein the central roller includes a ring rotating freely and maintained by a support device connected to a support shaft.

23. (New) The system according to Claim 22, wherein the support device comprises rollers for support by a ring and that come into rolling contact with an internal annular surface of the ring.

24. (New) A system for guiding a vehicle along a guiding rail, having a rolling surface and at least one side surface that constitutes a guiding surface, the system comprising:

a guiding roller device cooperating with the rolling surface and the side surface and including

a rolling part for rolling contact at a peripheral surface with the rolling surface of the rail, and at least one side part coming into contact with the side surface of the rail facing the at least one side part, wherein

the rolling part and the side part are rotationally connected and the side part is in pin-point contact with the rail and has, at a point of contact with the rail, the same speed as the rolling part on the rolling surface on rail, and

the system includes two rollers, each roller having a radial external part for contacting a side surface of the rail and a radial internal part for contacting the upper surface of the rail, the two rollers being arranged in a V-shaped configuration.

25. (New) A system for guiding a vehicle along a guiding rail, having a rolling surface and at least one side surface that constitutes a guiding surface, the system comprising:

a guiding roller device cooperating with the rolling surface and the side surface and including

a rolling part for rolling contact at a peripheral surface with the rolling surface of the rail, and at least one side part coming into contact with the side surface of the rail facing the at least one side part, wherein

the rolling part and the side part are rotationally connected and the side part is in pin-point contact with the rail and has, at a point of contact with the rail, the same speed as the rolling part on the rolling surface on rail, and

the system includes two rollers, each roller having a radial external part for contacting a side surface of the rail and a radial internal part for contacting an upper surface of the rail, the two rollers being arranged in a V-shaped configuration, wherein a first of the rollers has a peripheral ring for contacting an annular surface of a second of the rollers to ensure rotation of the first roller by friction with the second roller.

26. (New) A system for guiding a vehicle along a guiding rail, having a rolling surface and at least one side surface that constitutes a guiding surface, the system comprising:

a guiding roller device cooperating with the rolling surface and the side surface and including

a rolling part for rolling contact at a peripheral surface with the rolling surface of the rail, and at least one side part coming into contact with the side surface of the rail facing the at least one side part, wherein

the side part is in pin-point contact with the rail and has, at a point of contact with the rail, the same speed as the rolling part on the rolling surface on rail, and

areas of contact of the side part have, in radial section, a convex profile.

27. (New) A system for guiding a vehicle along a guiding rail, having a rolling surface and at least one side surface that constitutes a guiding surface, the system comprising:

a guiding roller device cooperating with the rolling surface and the side surface and including

a rolling part for rolling contact at a peripheral surface with the rolling surface of the rail, and at least one side part coming into contact with the side surface of the rail facing the at least one side part, wherein

the side part is in pin-point contact with the rail and has, at a point of contact with the rail, the same speed as the rolling part on the rolling surface on rail, and

the side part of the guiding roller device is part of a side roller having an axis of rotation, and, in a plane perpendicular to the axis and inclined with respect to a plane perpendicular to the rolling surface of the rail, areas of contact of the side part have, in radial section, a convex profile.